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| TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i> | Application Number | 10/669,956 | |
| | Filing Date | September 23, 2003 | |
| | First Named Inventor | Haiyou Wang | |
| | Art Unit | 1744 | |
| | Examiner Name | Not Assigned | |
| Total Number of Pages in This Submission | 161 | Attorney Docket Number | 17462-6 |

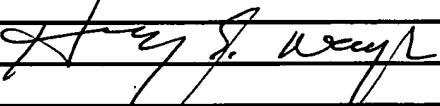
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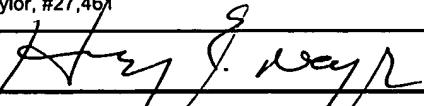
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| | | | |
|-------------------------|---|--|--|
| Firm or Individual name | Henry E. Naylor Kean, Miller, Hawthorne, D'Armond, McCowan & Jarman, L.L.P. | | |
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IN THE UNITED STATES OF AMERICA
PATENT AND TRADEMARK OFFICE

APPLICANT(S): HAIYOU WANG
R. TERRY K. BAKER

TITLE: CO-FREE HYDROGEN FROM DECOMPOSITION OF
METHANE

DOCKET NO.: 17462-6

MAIL STOP PATENT APPLICATION
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Dated: July 8, 2004



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| Application Number | 10/669,956 |
| Filing Date | September 23, 2003 |
| First Named Inventor | HAIYOU WANG |
| Group Art Unit | 1744 |
| Examiner Name | Unknown |
| Attorney Docket Number | 17462-6 |

U.S. PATENT DOCUMENTS

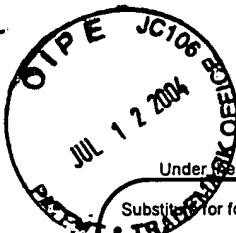
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| First Named Inventor | Haiyou Wang | | |
| Art Unit | 1744 | | |
| Examiner Name | Unknown | | |
| Attorney Docket Number | 17462-6 | | |

NON PATENT LITERATURE DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|--------------------|-----------------------|---|----------------|
| | 1 | P. Chen, H.-B., Zhang, G.-D. Lin, Q. Hong and K.R. Tsai "Growth of Carbon Nanotubes by Catalytic Decomposition of CH ₄ or CO on A Ni-MgO Catalyst", Carbon Vol. 35, No. 10-11, pp. 1495-1501, Great Britain, 1997. | |
| | 2 | Sakae Takenaka, Hitoshi Ogihara, Ichiro Yamanaka, Kiyoshi Otsuka, "Decomposition of methane over supported-Ni catalysts: effects of the supports on the catalytic lifetime", Applied Catalysis A: General 217 (2001) pp. 101-110. | |
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| | | | | Art Unit | 1744 |
| | | | | Examiner Name | Unknown |
| Sheet | 2 | of | 2 | Attorney Docket Number | 17462-6 |

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| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | | | T ² |
| | 12 | Rita Aiello, Jeffrey E. Fiscus, Hans-Conrad zur Loya, Michael D. Amiridis, "Hydrogen production via the direct cracking of methane over Ni/SiO ₂ : catalyst deactivation and regeneration", Applied Catalysis A: General 192 (2000) pp. 227-234 | | | |
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| | 19 | Yongdan Li, Jiuling Chen, Yongning Qin, and Liu Chang, "Simultaneous Production of Hydrogen and Nanocarbon from Decomposition of Methane on a Nickel-Based Catalyst", Energy & Fuels 2000, 14, pp. 1188-1194. | | | |
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